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the control system CS includes information of location and orientation of the x-ray source (26) and the x-ray detector (16) at times when taking the frames (300) and a means IP to calculate panoramic images (200) by summing information of the frames (300) with respect to said location and orientation information so as to generate panoramic images (200) as viewed from at least two different directions, and wherein

the user interface UI includes a means to give at least one control command relating to showing the at least two panoramic images (200) as viewed from said at least two different directions.

13. The apparatus according to claim 12, wherein said control system CS includes a means to show said at least two images (200) representing views from different directions simultaneously, in succession, as a combination image or as a moving image.

14. The apparatus according to claim 12, wherein said control system CS includes means to present said images (200) in succession according to the order of their viewing direction so as to give an impression of a turning dental arch.

15. The apparatus according to claim 12, wherein said control system CS includes means IP to generate said at least two panoramic images (200) by summing information of the frames (300) by at least two different ways with respect to information of location and orientation of the x-ray source (26) and the x-ray detector (16) at times when taking the frames (300).

16. The apparatus according to claim 12, wherein said means IP to calculate panoramic images (200) include a means to sum information of the frames (300) with respect to information of location and orientation of the x-ray beam and the x-ray detector at times when taking the frames.

17. The apparatus according to claim 16, wherein said means IP to calculate panoramic images (200) include a means to generate a virtual panorama curve (400) which represents a tomographic layer to be shown by the panoramic image (200) and place this curve (400) and said information of location and orientation of the x-ray beam and the x-ray detector in the same set of coordinates, and to generate the panoramic image (200) which represents a tomographic layer according to location of said curve (400) in said set of coordinates.

18. The apparatus according to claim 16, wherein said means IP to calculate include a means to generate a virtual panorama curve (400) with respect to said information of location and orientation of the x-ray beam and the x-ray detector which represents a desired tomographic layer to be shown by the panoramic image (200) and, to determine for a column C of the panoramic image (200) being generated a desired point P on said curve (400), and to generate a column C of the panoramic image (200) by summing those columns of the individual frames (300) to which the point P as viewed

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from the focus of the radiation source is projected, this projection P~P' defining a projection direction of the point P concerning the particular individual frame (300).

19. A dental panoramic imaging apparatus, including:
 an x-ray source (26) having a focus and an image detector (16) having a number of pixel columns,
 said x-ray source (26) and said image detector (16) being arranged to the apparatus at a first distance from each other,
 a drive means (1) for moving the x-ray source (26) and the detector (16) around a patient's head,
 a control system CS including means to control the apparatus to take several individual overlapping frames (300) along a dental arch, wherein
 the control system CS includes information of location and orientation of the x-ray source (26) and the x-ray detector (16) at times when taking the frames (300) and a means IP to calculate panoramic images (200) by summing information of the frames (300) with respect to said location and orientation information, said detector (16) is implemented as wide or wider than a second distance and
 the control system is arranged to control the imaging apparatus to take frames (300) whose width is equal to the second distance, the second distance being of about 2-10% of said first distance.

20. The apparatus according to claim 19, wherein said first distance is about 500-550 mm.

21. The apparatus according to claim 19, wherein said means IP to calculate panoramic images (200) include a means to generate a virtual panorama curve (400) which represents a tomographic layer to be shown by the panoramic image (200) and place this curve (400) and said information of location and orientation of the x-ray beam and the x-ray detector in the same set of coordinates, and to generate the panoramic image (200) which represents a tomographic layer according to location of said curve (400) in said set of coordinates.

22. The apparatus according to claim 21, wherein said means IP to calculate include a means to generate a virtual panorama curve (400) with respect to said information of location and orientation of the x-ray beam and the x-ray detector which represents a desired tomographic layer to be shown by the panoramic image (200) and, to determine for a column C of the panoramic image (200) being generated a desired point P on said curve (400), and to generate a column C of the panoramic image (200) by summing those columns of the individual frames (300) to which the point P as viewed from the focus of the radiation source is projected, this projection P~P' defining a projection direction of the point P concerning the particular individual frame (300).

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